

XXXVII.—Notes on a 'Catalogue of the Accipitres in the British Museum' by R. Bowdler Sharpe (1874). By J. H. GURNEY.

(Continued from p. 279.)

FOR the Kestrels, properly so called, including those of the New World, I think the generic name of "*Tinnunculus*" is preferable to that of "*Cerchneis*" adopted by Mr. Sharpe for them and for the allied subgenera *Dissodectes* and *Erythropus*; and I am fortified in this opinion by the following remarks from the pen of Dr. Selater, which I have his permission here to introduce:—

"As regards the proper generic name for the Kestrels, Mr. Salvin has already pointed out ('Ibis,' 1874, p. 360) that in his opinion Mr. Sharpe has made an unnecessary alteration in generally-employed nomenclature by employing the term *Cerchneis* instead of *Tinnunculus* for this group. The reason of the change is apparently that Mr. Sharpe considers that *Falco columbarius* is the type of Vieillot's genus *Tinnunculus*, which thus becomes a mere synonym of *Falco* (according to Mr. Sharpe). But on turning to the 'Oiseaux de l'Amérique Septentrionale' (i. p. 39) it will be found that Vieillot uses the name *Tinnunculus* simply as a Latin form of his division 'Cresserelles.' In this work he includes two species of 'Cresserelles,' namely, *Tinnunculus columbarius* and *T. sparverius*. Therefore, even according to the most strict interpretation of the rules of nomenclature, the term *Tinnunculus* is as much applicable to one as to the other. It is surely much more convenient to consider it as primarily applicable to the second, a true Kestrel, as it has always been used in this sense by previous writers, especially as the term *tinnunculus* (i. e. 'bell') is simply the specific name which Linnæus gave to the Common Kestrel turned into a genus. I think, therefore, that the proper generic name of the Kestrels is *Tinnunculus*, and not *Cerchneis*—the golden rule of nomenclature being, in my opinion, to make no alterations in established usage that can be *possibly* avoided."

In referring to the genus *Tinnunculus* I would, in the first

place, advert to the most extensively diffused of the Old-World species, *T. alaudarius* (Gmel.), in its typical phase of plumage, and to its darker races, which have received subspecific rank from some authors, but not from Mr. Sharpe, under the several titles of *neglectus* (Schleg.), *interstinctus* (M'Clell.)*, and *japonicus* (Temm. & Schleg.), names which I find convenient for use, though only to be taken as indicating local races of one widely-spread true species.

As regards these races, I would refer to the remarks contained in the article on *T. alaudarius* by Messrs. Sharpe and Dresser in the 'Birds of Europe,' to Mr. Sharpe's observations at pp. 426 and 428 of his Catalogue, and to his subsequent article in the P. Z. S. for 1874, pp. 580 to 584; also to Mr. Hume's remarks in Henderson and Hume's 'Lahore to Yarkand,' p. 175, and to those of Captain Legge in his 'Birds of Ceylon,' p. 175.

To the information recorded by the authors just referred to I may add a few supplementary notes, in the first place, as regards the geographical distribution of the typical pale race, and, secondly, as to that of the darker southern and eastern forms.

With respect to the geographical range of the pale Kestrel (the typical *Tinnunculus alaudarius*) I can add but little to that which has been already recorded by Messrs. Sharpe and Dresser in their article on this species in the 'Birds of Europe;' but I have to correct an error of my own, the occurrence of which I have lately discovered, to my no small annoyance. In Andersson's 'Birds of Damara Land,' p. 18, I referred to *T. alaudarius* a Kestrel obtained at Objimbinque on 1st February, 1865; but on a reexamination of this specimen, which is preserved in the Norwich Museum, I find that it is, in reality, a rather large and coarsely-marked female of *T. cenchris*, in which the claws, probably by reason of immaturity, have only partially attained the yellowish-white hue characteristic of that species. How so flagrant an error could

* M'Clelland's designation of "*interstinctus*" bears date from 1839, and has therefore priority over "*saturatus*," proposed by Blyth in 1859. (Cf. 'Stray Feathers,' vol. vi. p. 3.)

have occurred I am unable to say, and I can only now correct and regret it. As the result of this correction, the most southern point in Western Africa where *T. alaudarius* has been observed is, so far as I know, Fantee, a female of the pale race received thence being contained in the museum at Norwich. In Eastern Africa the most southern locality I know of for this species is Mombasa, whence I recently recorded an example (*suprà*, p. 124). This specimen is also of the pale race; and I find, on measuring it, that it probably is not a female, as I originally supposed, but a young male*.

With respect to the southern range of the pale *T. alaudarius* in more eastern countries, I may note that the Norwich Museum possesses an adult male which was obtained in the Seychelles, and that Captain Legge, at p. 115 of his work on the 'Birds of Ceylon,' mentions it as a regular winter visitor to that island, as it is also in India. This pale race extends as far eastward as the coast of China, where the two darker phases of coloration, constituting the races known as "*interstinctus*" and "*japonicus*," also occur.

In connexion with the geographical distribution of the darker races, it may be convenient to allude to the slight peculiarities which distinguish them from the paler race, the typical *T. alaudarius*. In all the dark races or subspecies of *Tinnunculus alaudarius* both the rufous portions of the plumage and those which are spotted or barred with blackish brown are more darkly and richly tinted than in the pale race, a peculiarity which is common to both sexes, but varies in degree in different individuals†. It is only in this respect that the females of the dark races constantly differ from those of the pale race; and the females of the three dark races, though exhibiting slight individual variations, do not appear to me to

* This Mombasa specimen is remarkable for having narrow brown transverse bars on the sides of the breast, which I have not observed in any other example of this species.

† The plumage of Kestrels becomes much worn and faded by exposure to atmospheric influences, and this should be borne in mind in comparing specimens of the different races. Newly moulted birds should, as far as possible, be compared with those in a similar stage, and *vice versa*.

show any constant difference in coloration between one such race and another, such slight differences as habitually exist being limited to the adult males.

Mr. Sharpe, at p. 427 of his Catalogue, observes :—“ Throughout all these dark races of Kestrel one character is predominant . . . , viz. that the female has more or less of a shade of blue on the rump and tail.” But this character is not a constant one—many dark females want it, and some pale females possess it, though more rarely than the darker females. Mr. Seebohm, who has been so good as to allow me to examine the fine series of Chinese Kestrels collected by the late Mr. Swinhoe, now in his possession, has a decidedly pale female obtained at Amoy in the month of February, in which the bluish grey on the rump and tail are conspicuously prevalent.

The grey on these parts seems to be indicative of a more mature age than the ordinary female plumage ; some females that have assumed it show on the upper tail-coverts transverse bars of two shades of grey replacing the two shades of brown which form similar bars on that part in females of a normal coloration ; in other cases these bars are altogether absent, the rump being of a uniform grey, with the exception, in some individuals, of small, wedge-shaped, slaty-black marks, which appear, with the point downwards, on the lower part of the shafts of some feathers of the upper tail-coverts, and especially on the side feathers of that portion of the plumage.

The remarkable Hertfordshire female figured by Mr. Sharpe in the P. Z. S. for 1874, pl. 18. fig. 3, with the rump and upper tail-coverts bluish grey, and the tail also of that colour on the paler interspaces, is now preserved in the British Museum. It has the plumage of the first-named parts transversely barred with two shades of grey, each feather also showing the small dark wedge-shaped spots just alluded to. Its general plumage is very unusually dark for a British specimen ; but this may perhaps be partly due to its having apparently newly moulted, the feathers showing scarcely any signs of abrasion. It was killed on 29th April.

Dr. Scully, who has very kindly allowed me to examine the

Kestrels in his collection, has a specimen obtained by him in Gilgit, and proved by dissection to be an undoubted female, in which the coloration and markings of the upper tail-coverts are of the character last mentioned, and in which the markings on the mantle approach remarkably to those of the male bird, as they form spots rather than transverse bars. The tone of coloration in this specimen leads me to refer it to *T. interstinctus*.

The males of the darker races of the Common Kestrel, besides having, like the females, a more richly and darkly coloured plumage, exhibit a tendency (varying somewhat in different individuals) to a more profuse distribution and larger size of the dark spots on the mantle, and especially of those on the lower scapulars and tertials; but in estimating such differences as exist in this respect it should be borne in mind that in the typical *T. alaudarius*, as well as in the darker races, the males, on first assuming the adult dress, are usually more spotted on the parts just mentioned than is the case when they become somewhat older. This spotting is especially profuse in the male Kestrels of the Cape-Verd Islands, of Teneriffe, and of Madeira. These all belong to a small dark-coloured race; and I should include them all under the subspecific name of "*neglectus*," proposed by Professor Schlegel* for those of the Cape-Verd group, with which the Teneriffe and Madeira birds appear to me to be almost identical in plumage and also closely allied as regards size.

This small dark race does not appear to extend to the Azores, the only specimen of a Kestrel which Mr. Godman met with on that group of islands being a female from the island of St. Michael's in very worn and faded plumage, which corresponds in size to ordinary European specimens, and is probably referable to the typical *T. alaudarius*. This specimen, which is mentioned in Mr. Godman's 'Natural History of the Azores,' p. 21, is preserved in the British Museum, where there is also a typical pale *T. alaudarius*, apparently a female, procured in the Cape-Verd group, which it had, no doubt, visited as a migratory wanderer.

* *Vide* Museum des Pays-Bas, Revue (1873), Accipitres, p. 43.

Kestrels as dark as *T. neglectus*, but larger than the average of specimens of the insular race, and equalling (according to my observation) the ordinary size of the typical *T. alaudarius*, occur in Africa north of the equator, and are also to be found as far eastward as the coast of China. All these Kestrels may, I think, be included under the subspecific name of "*interstinctus*;" but it is a subspecies less distinct from the typical *T. alaudarius* than is either *T. neglectus* or *T. japonicus*, individuals frequently occurring with a complexion of coloration intermediate between *T. interstinctus* and *T. alaudarius*, and which it is difficult to assign with a trenchant accuracy to either race.

The most westerly example* apparently referable to *T. interstinctus* which has come under my notice is a young Spanish male from the province of Madrid, which is preserved in the Norwich Museum, and which is quite as dark as an average Madeiran example of similar age and sex, but is decidedly too large to be referred to the insular *T. neglectus*, or to be regarded as a wanderer from Madeira.

Mr. Sharpe has stated, in the P. Z. S. for 1874, p. 581, that a dark race of Kestrels occurs in Senegambia; but this has not come under my personal observation.

In Abyssinia, besides migratory individuals of the pale typical *T. alaudarius*, there occurs a darker race, apparently non-migratory, which is identical with Asiatic specimens of *T. interstinctus*. Mr. Blanford obtained, at Adigrat, in Tigré, at a level of 8000 feet above the sea, a pair of *T. interstinctus*, shot 23rd and 25th April, and a male, in change, of the pale *T. alaudarius*, shot 22nd April. These three specimens are all preserved in the British Museum.

A female from Tangiers in the Norwich Museum is not quite so dark in its coloration as the dark Abyssinian females, but is, I think, sufficiently so to be referred to *T. interstinctus*.

The Norwich Museum possesses an adult male from Ceylon,

* The Hertfordshire female previously alluded to, though certainly a dark bird, can, I think, hardly be referred to so southern a race as that which has received the title of *interstinctus*.

so richly and darkly coloured that it must, I think, be considered an example of *T. interstinctus*. This specimen is the more interesting, as Captain Legge, in his article on *T. alaudarius*, to which I have already referred, states that he only met with the pale race in that island. It ought, however, to be mentioned that Mr. Samuel Bligh, by whom this specimen was presented to the Norwich Museum, kept it in confinement for four years; and it is possible that its plumage, being thus preserved from the action of sun and weather, presents, from that cause, a darker and richer aspect than it would have done had the bird been exposed to both in a state of nature*.

I have examined adult, or nearly adult, males which I consider to belong to *T. interstinctus*, from Baltistan, in Kashmir (10,500 feet above the level of the sea), from Bootan, from the Himalayas, and from Travancore, also from the following localities in China, viz. Peking, Shanghai, and Amoy; and I may add that the Norwich Museum possesses a very dark newly-fledged nestling, which was obtained by Mr. Swinhoe at Amoy on 13th June; but as it is very young and in female plumage, I am unable to say whether it ought to be referred to *T. interstinctus* or to *T. japonicus*.

In the adult males of *T. japonicus* the dark spots on the mantle, and especially those on the scapulars, are not only larger than in *T. alaudarius* and in *T. interstinctus*, but are usually, though not invariably, of a more guttate shape, this appearance, which in some individuals is very conspicuous, being caused by the feathers having broad, dark shaft-marks

* Since the above was written, I have received from Mr. Bligh the following reply to an inquiry I addressed to him respecting this specimen:—"The bird was pinioned by a shot, between October and April, in the cool season. It was adult when procured, and decidedly dark then; but it grew darker at the first moult, being the darkest I ever saw, which induced me to preserve its skin. In confinement it moulted regularly and completely, and died suddenly from a fright accidentally caused by myself, the heart being then a mass of fat. It was fed almost exclusively on its natural food, lizards, beetles, and grasshoppers. It was restless at migratory seasons. I never knew any Kestrel, of any species or race, breed or remain all the year in Ceylon."

situated above the blackish dorsal spots and running into their upper edge. This race inhabits Japan, and, according to Mr. Swinhoe ('Ibis,' 1863, p. 211), is also found in Formosa. I have examined male birds exhibiting the peculiar markings of this race from Ningpo and Amoy, in China; and I observe that Col. Prejevalsky speaks of having found "*Tinnunculus japonicus*, Schleg.," resident in some parts of Mongolia*, though I think it possible that the Mongolian birds here alluded to may belong to the race which I should refer to *T. interstinctus* rather than to *T. japonicus*.

It may be well here to add a few words as to the Kestrels found in Hainan by the late Mr. Swinhoe, who, writing of his visit to that island in 'The Ibis' for 1870, p. 84, remarks:—"I procured specimens [of Kestrels] both there and in the small island of Naochow, which do not appear to differ from European examples." Two of these Hainan specimens, apparently males not fully adult, are now in the possession of Mr. Seebohm. They are both of them rather small birds and rather dark in colour, being, as it seems to me, referable to *T. interstinctus* rather than to *T. alaudarius*.

The following is a summary of measurements of Kestrels taken by myself. The letters B.M. and N.M. denote that the specimens to which they are attached are preserved in the British and Norwich Museums:—

<i>T. alaudarius</i> , typical pale race.	MALES.		
	Wing. inches.	Tarsus. inch.	Middle toe s. u. inch.
Norfolk, collection of J. H. Gurney, Jun.	9·65	1·60	1·10
Sicily, N.M.	9·80	1·70	1·20
Crimea, N.M.	9·70	1·50	1·20
Senegal, N.M.	9·65	1·60	1·10
Nubia, N.M.†	10·40	1·50	1·20
Abyssinia, N.M.	9·80	1·60	1·20
Ditto, B.M.	9·95	1·50	1·20
Mombasa, N.M.	9·30	1·70	1·20
Erzeroum, N.M.	10·10	1·70	1·20

* *Vide* Translation of "Notes on Birds of Mongolia" in Rowley's Orn. Miscellany, vol. ii. p. 151.

† This unusually long-winged specimen is in full adult male plumage.

<i>T. alaudarius</i> , typical pale race.	Wing. inches.	Tarsus. inch.	Middle toe s. u. inch.
Kashgar, N.M.	9.95	1.50	1.10
Three from Yarkand, N.M., and collec- tion of Dr. Scully	9.45 to 10.10	1.60 to 1.70	1.10 to 1.20
Three from Gilgit, collection of Dr. Scully	9.70 to 10.10	1.55 to 1.60	1.10 to 1.15
Nepal, collection of Dr. Scully	9.95	1.60	1.20
Poonah, N.M.	9.80	1.60	1.20
Ceylon, N.M.	10.15	1.60	1.10
China, N.M.	10.10	1.50	1.10
Ningpo, collection of Mr. Seeböhm	10	1.70	1.20

T. neglectus.

Island of Maio, Cape-Verd group, B.M.	8.45	1.30	1
Island of St. Iago, Cape-Verd group, N.M.	8.90	1.60	1.20
Ditto, B.M.	8.90	1.50	1.10
Teneriffe, B.M.	8.95	1.50	1.10
Ditto, ditto	9.20	1.50	1.20
Nine from Madeira, B.M. and N.M. ..	8.55 to 9.40	1.40 to 1.60	1.10 to 1.20

T. interstinctus.

Spain, Province of Madrid, N.M.	9.80	1.60	1.20
Adigrat, Tigré, B.M.	9.45	1.40	1.15
Ladak, B.M.	9.40	1.70	1.30
Baltistan, Kashmir, N.M.	10.10	1.60	1.10
Bootan, N.M.	9.90	1.60	1.10
Nepal, B.M.	9.35	1.50	1.20
Himalayas, N.M.	10	1.50	1.20
Travancore, B.M.	9	1.60	1.30
Ceylon, N.M.	9.30	1.50	1.10
Pekin, N.M.	9.70	1.70	1.10
Ditto, Mr. Seeböhm's collection	9.65	1.60	1.10
Shanghai, N.M.	9.95	1.60	1.10
Five from Amoy, N.M., and Mr. See- böhm's collection	9.65 to 10.15	1.60 to 1.80	1.20
Hainan, Mr. Seeböhm's collection	9.50	1.50	1.20
Ditto*, ditto	9.85	1.60	1.20

* This specimen is marked by Mr. Swinhoe as a female; but it has spots on the upper scapulars, which appear to me to show that it is a young male.

<i>T. japonicus.</i>	Wing. inches.	Tarsus. inch.	Middle toe s. n. inch.
Ningpo, N.M.	9.70	1.80	1.20
Six from Amoy, N.M., and collection of Mr. Seeborn	9.80 to 10.20	1.50 to 1.70	1.10 to 1.20
Four from Japan, N.M., and collection of Mr. Seeborn	9.70 to 10	1.60 to 1.80	1.10 to 1.20
FEMALES.			
<i>T. alaudarius</i> , typical pale race.			
Cape-Verd group, B.M.	10.30	1.60	1.30
St. Michael's, Azores, B.M.	10.10	1.50	1.20
Durham, collection of J. H. Gurney, Jun.	10.50	1.70	1.20
Fantee, N.M.	10.20	1.70	1.15
Yen-e-Say, Eastern Siberia, N.M.	10.20	1.60	1.10
Yarkand, in collection of Dr. Scully, and dissected by him	9.80	1.60	1.20
Five from Kashmir, in collection of Dr. Scully, and dissected by him ..	9.50 to 10.30	1.50 to 1.60	1.10 to 1.20
Nepal, collection of Dr. Scully	10.30	1.60	1.10
Amoy, collection of Mr. Seeborn	10.30	1.60	1.25
Ditto, ditto	10.30	1.50	1.20
<i>T. neglectus.</i>			
Island of St. Maio, Cape-Verd group, N.M.	8.80	1.60	1.10
Island of St. Vincent, Cape-Verd group, B.M.	8.40	1.45	1
Three from Madeira, N.M.	9.20 to 9.50	1.50 to 1.70	1.15 to 1.20
<i>T. interstinctus.</i>			
Tangiers, N.M.	10	1.50	1.20
Abyssinia, N.M.	9.80	1.50	1.20
Adigrat, Tigré, B.M.	9.60	1.50	1.30
Chinese females respecting which I am doubtful whether they should be referred to <i>T. interstinctus</i> or to <i>T. japonicus</i> .			
Chefoo, N.M.	10.60	1.70	1.20
Foochow, N.M.	10.40	1.60	1.10

	Wing. inches.	Tarsus. inch.	Middle toe <i>s. u.</i> inch.
<i>T. interstinctus</i> .			
Four from Amoy, N.M., and Mr. See- } bohm's collection }	10·05 to 10·55	1·50 to 1·70	1·10 to 1·20
<i>T. japonicus</i> .			
Three from Japan, N.M. }	10 to 10·25	1·50 to 1·70	1·10 to 1·30

Three species of the genus *Tinnunculus*, all apparently sedentary, are peculiar to Africa, viz. :—*T. rupicola*, which inhabits the most southern portion of that continent, its northern limit on the eastern boundary of South Africa nearly coinciding with the tropic of Capricorn, and on the west with the 15th degree of south latitude; *T. rupicoloides*, the northern limit of which seems to be about the 15th degree on both sides of the continent, extending southwards to the tropic, or thereabouts, on the west, and to about the 25th degree on the east; and *T. alopes*, which has only been met with in Sennaar and the countries immediately adjacent. In v. Heuglin's article on this species in Orn. N.O. Afr. vol. i. p. 41, mention is made of a specimen preserved in the Vienna Museum, which is said to be from Nubia, and which, if this locality be correct, is the most northerly example of it on record; and I am indebted to Captain Shelley for calling my attention to a recent notice of its occurrence by Dr. Hartlaub (Abhandl. naturw. Ver. Bremen, Band vii., Heft 2, p. 115) at Lado, in N. lat. 5° and long. about 32° E., which is probably the most southern point at which it has been met with.

With respect to these three species, I have only to remark, as regards *T. rupicola*, that Mr. Sharpe's description of the female, as given in his Catalogue, p. 429, and also the figure and description of a female specimen in the P. Z. S. 1874, pl. 18. fig. 2, and p. 583, appear to be taken from examples not fully adult, as the old female exactly resembles the adult male, with the exception of the dark slaty-grey cross bars on the pale-grey ground-colour of the tail. I have recently examined such a female in the collection of Captain Shelley, sexed by Mr. Buckley, who obtained it in Natal.

I may also note that Mr. Sharpe's article in the P. Z. S. above referred to contains a modification of the measurements of this species as given in his Catalogue.

Mr. Sharpe states, in his description of *T. rupicoloides*, that the adult female has "the flanks more barred" than is the case in the male; but I do not find this to be a constant distinction between the sexes in this species.

Mr. Sharpe's description of *T. alopec* is stated to be taken from an adult male, which I believe is preserved at Leyden; but an adult female from Bogos Land in the British Museum agrees with his description in colour and markings; and, according to Von Heuglin ('Ibis,' 1861, p. 71), the male only differs from the female "by a rather more intense coloration" and by its somewhat smaller size. Specimens of *T. alopec* are extremely scarce in collections, and that at the British Museum is the only one which I have had an opportunity of examining. The two last-named species, *T. rupicoloides* and *T. alopec*, are the largest of the genus, offering, in this respect, a remarkable contrast to the three small species which inhabit insular localities lying immediately to the east of the African continent, viz. *T. newtoni* of Madagascar, *T. punctatus* of Mauritius, and *T. gracilis* of the Seychelles.

Since the publication of Mr. Sharpe's volume, two plates of *T. newtoni*, in its different stages of plumage, and two of its osteological details, have appeared in MM. Milne-Edwards and Grandidier's work on the 'Birds of Madagascar,' pls. 13 to 14*a*, and also an article on this species at p. 45 of vol. i. of that work. Comparing the account given by these authors of the variations of plumage in this species with Mr. Sharpe's remarks on that subject at p. 434 of his Catalogue, and with the specimens preserved in the British and Norwich Museums, and also with an interesting series kindly lent to me by Professor Newton, it appears to me that the sexes do not differ in coloration, but that both pass through three distinct phases of plumage, to which I will now briefly allude.

A nestling lent to me by Professor Newton, though still partly in the down, is sufficiently advanced to show that the feathers of the head are greyish black, slightly mingled with

dark rufous ; the mantle and tail dark rufous, very broadly banded with black, and the tail tipped with fulvous ; the feathers of the breast and abdomen rufous, the former having elongated black centres, and the latter being broadly barred with black ; the under tail-coverts rufous, with dark-brown central spots and creamy fulvous tips, thus very much agreeing with the descriptions of the plumage of the "nestling" and of the "young birds" respectively given by Mr. Sharpe and by MM. Milne-Edwards and Grandidier.

As the bird advances from the first to the second stage of plumage, the dark cross bars on the mantle become broken up into guttate spots, except on the lower scapulars, tertials, and upper wing-coverts, which continue to be more or less transversely barred ; the inner webs of the primaries (which in Professor Newton's nestling are a whole-coloured blackish brown) become edged with rufous notch-marks that merge into similar white marks towards the base of the feather, and a grey tint, in alternate pale and dark transverse bars, over-spreads the upper tail-coverts ; the under surface changes in very much the same manner as the mantle (the ground-colour being dark rufous, interspersed with small blackish-brown spots), excepting the throat and vent, which are whitish, and the under tail-coverts, which exhibit two shades of grey.

When the bird assumes what I conceive to be the fully adult dress, the transverse bars often disappear from the upper tail-coverts, which are then of one uniform shade of grey, with the exception of small black shaft-marks, the grey also extending to the pale interspaces on the tail, and replacing the rufescent brown tint which previously distinguished them ; the under tail-coverts become pure white, as does the entire under surface, with the exception of the small dark spots on the breast and abdomen, which remain as they were previously, except that they are now exhibited on a white instead of on a dark rufous ground, the latter colour lingering longest on the upper breast and flanks ; the ear-coverts participate in this change, becoming white instead of brownish grey, and all the notch-marks on the inner webs are now white also.

In the article on this species by MM. Milne-Edwards and Grandidier, to which I have already referred, the plumage which I have last described is spoken of, not as the fully adult dress, but as a "plumage de noces;" and the large opportunities which were possessed by M. Grandidier of observing this Kestrel in a state of nature gives great weight to his opinion. But if this Kestrel is really subject, as he implies, to an absolute seasonal change of coloration, such a phenomenon (so far as I know) is quite unique amongst the Falcons, and, moreover, appears to be hardly compatible with the dates at which some of the under-mentioned specimens were procured.

Professor Newton possesses a male in full adult white-breasted plumage, obtained in July, and a female in the like dress, but not quite so complete, taken with her eggs on 17th September. A similar female, shot on the 13th September, is in the Norwich Museum, which likewise contains a rufous-breasted male and female, also obtained on 13th September, and another rufous-breasted male killed 28th September. The last-named four specimens were all collected, sexed, and presented to the Norwich Museum by Mr. Edward Newton, to whom that Museum is also indebted for two males, both killed on the 10th January—one a newly-moulted specimen in white-breasted plumage, but still showing immature dark cross bars on the wing-coverts, the other a rufous-breasted bird in very faded plumage, evidently nearly approaching the period of moulting.

Mr. Sharpe remarks that "the rufous individuals have more grey on the head than the white-breasted ones;" but I find that this difference, though frequent, is not entirely constant.

As regard *T. punctatus* of the Mauritius, I have nothing to add to Mr. Sharpe's remarks, except to mention that it is said occasionally to occur also in the island of Réunion. (Cf. 'Ibis,' 1869, p. 447.)

Neither have I any thing to observe under the head of *T. gracilis*, except that I do not find the greater breadth of the tail-bands in the female, mentioned by Mr. Sharpe, to be

a constant character. I may, however, add that this species is the smallest of the genus.

Mr. Sharpe, in the P. Z. S. for 1874, p. 583, has referred to *Tinnunculus moluccensis*, quoting Professor Schlegel's observations, and adding some remarks of his own, as to the slight differences in coloration which occur in this species in different localities. I am not able to throw any additional light upon this subject, but think that the following measurements, taken by myself from specimens in the British and Norwich Museums, may be worth recording :—

MALES.

	Wing.	Tarsus.	Middle
	inches.	inch.	toe s. u. inch.
Java, N.M.	9.20	1.50	1.10
Borneo, N.M.	8.70	1.50	1.20
Macassar, B.M.	7.85	1.45	1.10
Flores, B.M.	8.70	1.50	1.20
East Timor, N.M.	8.60	1.40	1.00
Ditto, N.M.	8.20	1.40	1.00
Gilolo, N.M.	9.20	1.50	1.15
Ditto, B.M.	8.80	1.40	1.30
Ceram, N.M.	9.20	1.60	1.20

FEMALES.

	Wing.	Tarsus.	Middle
	inches.	inch.	toe s. u. inch.
Flores, B.M.	9.00	1.40	1.10
Ditto, B.M.	9.20	1.50	1.20
Batchian, N.M.	8.90	1.50	1.20
Ternate, N.M. (marked ♀ by Dr. Bernstein)	9.30	1.60	1.30
Ditto, N.M.	10.30	1.90	1.30
East Timor, B.M. (marked ♀ by Mr. Wallace).	8.75	1.45	1.20
Gilolo, N.M.	9.60	1.50	1.25
Goram, B.M.	9.50	1.65	1.40

We may now pass to a more southern species, *T. cenchroides*, of Australia. Mr. Sharpe gives as the habitat of this Kestrel simply Australia. Mr. E. T. Ramsay, in his 'Catalogue of

Australian *Accipitres*,' p. 61, gives as its habitat "the eastern and southern parts of Australia;" but it would appear occasionally to wander to Tasmania also, as two Tasmanian examples are recorded in the 'Proceedings of the Royal Society of Tasmania' for 1875, p. 8; and a specimen, said to have been obtained in that island, is preserved in the Norwich Museum.

The most northern example that I have seen of this species is a specimen, which is also in the Norwich Museum, from Lizard Island, off the N.E. coast of Australia.

There remain but two more Old-World Kestrels to claim our attention—*T. cenchrus* and its very closely allied oriental representative, *T. pekinensis*.

For the first of these Mr. Sharpe has adopted the specific name of "*naumanni*;" but cause has been shown (and, I think, satisfactorily), in 'The Ibis' for 1874, p. 361 (foot-note), and for 1875, p. 515, for retaining, in preference, the name of "*cenchrus*," proposed for this species by Naumann himself.

Mr. Sharpe does not refer to the Asiatic habitats of this species; but it has been recorded as breeding in Asia Minor, Syria, Persia, and Turkestan, and it has also been observed as a spring migrant in Arabia.

Its congener, *T. pekinensis*, has, so far as I know, only been recognized in India and in China, and must, I think, be considered merely a subspecies of *T. cenchrus*, the differences between them being limited to the adult males*, and even in them not being very constant.

Mr. Sharpe thus describes the adult male of *T. pekinensis*:—"Very similar to *C. naumanni*, but darker and more vinous above; underneath also darker-coloured, and unspotted when adult. The principal distinction is in the wing-coverts, which are almost entirely blue-grey, only the very innermost being slightly washed with rufous."

The males of *T. pekinensis* which I have examined are but

* Mr. Swinhoe's observation as to the colouring of the tips of the primaries (to which I refer in a subsequent paragraph) may possibly refer to both sexes.

very slightly, and sometimes scarcely at all, darker and more vinous than newly-moulted males of *T. cenchris*; and the only one which I remember to have seen corresponding in all respects with Mr. Sharpe's description of the fully adult male was in the collection of the late Lord Tweeddale, and was one of two specimens labelled "West Coast of India." The following are the memoranda which I made after examining these Kestrels:—

No. 1. Entirely immaculate below; entire wing-coverts grey, except a row of rufous feathers on the ridge of the wing, and rufous edgings to the adjoining median coverts.

No. 2. Immaculate below, excepting four very small spots on the abdomen, the rufous edging extending rather further on the median wing-coverts, and the small coverts forming a broader band of rufous than in No. 1.

Most Indian males appear to be more or less spotted on the abdomen, even when the grey on the wing-coverts has attained the full dimensions described by Mr. Sharpe. (Cf. 'Stray Feathers,' vol. iii. p. 385, and vol. ix. p. 243.)

The Norwich Museum, however, is in possession of a male shot at Dinapore on 26th March, and presented by Mr. W. E. Brooks, in which the whole under surface is absolutely free from spots, leading to the belief that it is a very old individual; and yet the grey on the wing-coverts stops short of the carpal joint by nearly an inch, and, altogether, is not more extended than in ordinary males of *T. cenchris*—less so, indeed, than in a male from Transvaal which is now before me.

Mr. Blanford writes as follows with reference to the male specimens of *T. cenchris* (five in number) which he obtained in Persia:—" *T. cenchris*: all the specimens obtained agree with the European and African species, and differ from Indian and Chinese specimens (*T. pekinensis*, Swinh.) in their pale colour, and in having most of the wing-coverts rufous; but in two specimens there is a complete absence of spotting on the ventral surface, showing that this character disappears with age"*.

A specimen, entirely immaculate on the under surface, and

* 'Zoology and Geology of Eastern Persia,' p. 106.

in other respects resembling the Dinapore male in the Norwich Museum, was obtained at Huilla, in Angola, and is fully described by Prof. Barboza du Bocage in his 'Ornithologie d'Angola,' vol. i. p. 51. A similar male, as I am informed by Mr. Sharpe, was obtained in Damara Land by the late Mr. Andersson, and is preserved in the Museum of Leyden.

The late Mr. Swinhoe, in his original description of *T. pekinensis* (P. Z. S. 1870, p. 442), remarked:—"The adult has the inner or short primaries broadly bordered at their tips with whitish, rufous in the immature, and wanting in the European; both adult and immature have the white on the under quills $3\frac{1}{4}$ inches short of their tips; in the European bird it advances 1 inch nearer the tips." Whether *T. pekinensis* usually exhibits these peculiarities I am unable to say; but I cannot detect them in the only specimen to which, at the present moment, I have access—the male from Dinapore, above referred to.

[To be continued.]

XXXVIII.—Notices of recent Ornithological Publications.

[Continued from p. 286.]

51. *Blanford on a new Trochalopteron.*

[On a Species of *Trochalopteron* from Travancore. By W. T. Blanford, F.R.S. J. A. S. B. xlix. p. 142.]

Mr. Blanford separates a *Trochalopteron*, obtained on the Travancore hills by Mr. F. W. Bourdillon, from the *T. fairbanki*, of the Palni hills, and names it *T. meridionale*.

52. *Bocage on West-African Birds.*

[Aves das possessões portuguezas d'Africa occidental. Decima nona e vigesima listas. Por J. V. Barboza du Bocage. Jorn. Sci. Lisboa, no. xxviii. e xxix. 1880].

Prof. Barboza's nineteenth list gives 93 species, from Sr. Anchieta's last collection at Caconda, made in the last four months of 1879 and in January 1880. Seven are new to the